STIC Search


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=> fil hcaplu
FILE 'HCAPLUS' ENTERED AT 10:06:55 ON 09 JUN 2003
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FILE COVERS 1907 - 9 Jun 2003  VOL 138 ISS 24
FILE LAST UPDATED: 8 Jun 2003  (20030608/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


=> d stat que
L1          215 SEA FILE=REGISTRY IMMUNOGLOBULIN A?/CN
L3        15080 SEA FILE=HCAPLUS L1 OR IMMUNOGLOBULIN(W)A OR IGA
L5           63 SEA FILE=HCAPLUS L3(5A)(ANTIBOD? OR AB# OR MAB OR PAB) AND
                   (HIV OR HUMAN(W)IMMUNODEFIC?(W)VIRUS) AND VACCIN?
L6           10 SEA FILE=HCAPLUS L5 AND B(W)CELL?


=> d ibib abs hitrn l6 1-10

L6   ANSWER 1 OF 10  HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:         2003:377004  HCAPLUS
TITLE:                    Efficient inhibition of HIV-1 viral entry
                          through a novel fusion protein of CD4
INVENTOR(S):              Arthos, James; Cicala, Claudia; Fauci, Anthony S.
PATENT ASSIGNEE(S):       Department of Health and Human Services, USA
SOURCE:                   PCT Int. Appl., 100 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE          APPLICATION NO.  DATE
     ---------------   ----  --------      ---------------  --------
     WO 2003040311      A2   20030515      WO 2002-US34393  20021024
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD,
             RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
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PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: US 2001-346231P P 20011025
AB The authors disclose recombinant polypeptides that include CD4 extracellular domains ligated at its C-terminus with a portion of an Ig comprising a hinge region and a const. domain of a mammalian Ig heavy chain. The const. domain of the Ig heavy chain is in turn fused at its C-terminus with a polypeptide comprising a tailpiece from the C-terminus of an **IgA** or IgM **antibody**. In one example, a CD4 fusion protein inhibited the infection of mononuclear cells. In a second example, a CD4 fusion protein was shown to mediated ADCC by natural killer cells towards **HIV**-infected target cells.

L6 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:926906 HCAPLUS
DOCUMENT NUMBER: 138:236290
TITLE: Anti-**HIV** and -SIV immunity in the vagina
AUTHOR(S): Miller, Christopher J.; Lue, Fabien X.
CORPORATE SOURCE: School of Veterinary Medicine, Microbiology and Immunology, California Regional Primate Research Center and Department of Pathology, Virology and Immunology Unit, University of California Davis, Davis, CA, USA
SOURCE: International Reviews of Immunology (2003), 22(1), 65-76
CODEN: IRIMEH; ISSN: 0883-0185
PUBLISHER: Taylor & Francis Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review. Most **HIV** infections worldwide are transmitted through heterosexual contact. In order to develop **vaccination** strategies, the basic biol. of the immune system in female reproductive tract and the full range of vaginal immune responses that occur during natural **HIV** infection must be understood. The cervicovaginal mucosa contains a complete set of immune cells, including antigen-presenting cells, CD4+ and CD8+ T cells, and **B cells**. The CVS of **HIV**-infected women and SIV-infected female rhesus macaques contain variable levels of antiviral antibodies. Some of this variation is due to the effects of female ovarian hormone cycle. IgG antibodies make up the bulk of the antiviral antibody response. However, **IgA antibodies** are present at lower levels. **HIV**/SIV-specific CD8+ cytotoxic T lymphocytes are present in the cervicovaginal mucosa of infected women and rhesus macaques. A **vaccine** that can elicit strong antiviral immunity may provide protection for heterosexual **HIV**-1 transmission.
REFERENCE COUNT: 68 THERE ARE 68 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:507867 HCAPLUS
DOCUMENT NUMBER: 135:91527
TITLE: Tissue-specific DNA delivery via M cell-directed **vaccines**, and enhanced in vivo mucosal IgA and T cell responses resulting therefrom
INVENTOR(S): Pascual, David W.
PATENT ASSIGNEE(S): Research and Development Institute, Inc., USA
SOURCE: PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

Searched by M. Smith

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001049867	A1	20010712	WO 2001-US426	20010108
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1257654	A1	20021120	EP 2001-901811	20010108
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: US 2000-174786P P 20000106
WO 2001-US426 W 20010108

AB This invention provides a **vaccine** that can direct gene transfer to follicle assocd. epithelium or M cells to induce mucosal immunity using M cell ligands for receptor-mediated endocytosis. In particular, the invention is directed to polybasic amino acid-conjugated M cell ligand-DNA complex **vaccine** compns. that are internalized by receptor-dependent endocytosis, thereby rendering transfection to be minimally toxic. By chem. coupling M cell ligands (preferably reovirus protein .alpha.1 or an adhesin of Salmonella or polio virus) to a polymeric chain of basic amino acids (preferably polylysine), and to DNA can be delivered to appropriate tissue types to obtain enhanced in vivo mucosal **IgA antibody** and T cell responses against an encoded antigen. To demonstrate the efficacy of the **vaccine** design, inventors have used reporter genes for .beta.-galactosidase and luciferase, as well as **vaccine** antigens derived from **human immunodeficiency virus** (**HIV**) and Brucella, to demonstrate differences in mucosal **IgA antibody** responses between animals **vaccinated** with DNA only and those **vaccinated** with the conjugated DNA complexes of the invention. The DNA **vaccines** of the invention induce improved mucosal **IgA antibody** responses and promote sustained CTL responses. Further, methods are described for immunizing animal and human subjects against bacterial, viral, parasitic, fungal infectious agents or cancer, and methods for assaying mucosal immunity using this **vaccine**.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:447507 HCAPLUS
DOCUMENT NUMBER: 135:194254
TITLE: Immunogenicity of the extracellular domains of C-C chemokine receptor 5 and the in vitro effects on simian immunodeficiency virus or **HIV** infectivity
AUTHOR(S): Lehner, Thomas; Doyle, Carl; Wang, Yufei; Babaahmady, Kaboutar; Whittall, Trevor; Tao, Louisa; Bergmeier, Lesley; Kelly, Charles
CORPORATE SOURCE: Department of Immunobiology, Guy's, King's and St.

Thomas' Hospital Medical Schools, London, UK
SOURCE: Journal of Immunology (2001), 166(12), 7446-7455
CODEN: JOIMA3; ISSN: 0022-1767
PUBLISHER: American Association of Immunologists
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The C-C chemokine receptor CCR5 serves an important function in chemotaxis of lymphocytes, monocytes, and dendritic cells. CCR5 is also the major coreceptor in most macrophage-tropic **HIV**-1 infections. Immunization of rhesus macaques with a baculovirus-generated CCR5 construct or peptides derived from the sequences of the four extracellular domains of CCR5 elicited IgG and **IgA Abs**, inhibition of SIV replication, and CD4+ T cell proliferative responses to three of the extracellular domains of CCR5. The immune sera reacted with cell surface CCR5 expressed on HEK 293 cells. T and **B cell** epitope mapping revealed major and minor T and **B cell** epitopes in the N-terminal, first, and second loops of CCR5. The three C-C chemokines, RANTES, macrophage-inflammatory protein-1.alpha., and macrophage-inflammatory protein-1.beta., were up-regulated by immunization with the CCR5-derived peptides, and the cell surface expression of CCR5 was decreased. The CCR5 Abs were complementary to the C-C chemokines in inhibiting **HIV** replication in vitro. Immunization with the four extracellular domains of CCR5 suggests that three of them are immunogenic, with maximal T cell responses being elicited by the second loop peptide. However, maximal Abs to the cell surface CCR5 or viral inhibitory Abs in vitro were induced by the N-terminal peptide. Up-regulation of the three C-C chemokines and down-modulation of cell surface CCR5 were elicited by the second loop, N-terminal, and first loop peptides. The data suggest that a dual mechanism of C-C chemokines and specific Abs may engage and down-modulate the CCR5 coreceptors and prevent in vitro **HIV** or SIV replication.

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:884517 HCAPLUS
DOCUMENT NUMBER: 134:206453

TITLE: Induction of Immune Responses and Break of Tolerance by DNA against the **HIV**-1 Coreceptor CCR5 but No Protection from SIVsm Challenge

AUTHOR(S): Zuber, Bartek; Hinkula, Jorma; Vodros, Dalma; Lundholm, Peter; Nilsson, Charlotta; Morner, Andreas; Levi, Mikael; Benthin, Reinhold; Wahren, Britta
CORPORATE SOURCE: Swedish Institute for Infectious Disease Control, Solna, Swed.

SOURCE: Virology (2000), 278(2), 400-411
CODEN: VIRLAX; ISSN: 0042-6822
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB An inactivating mutation in the human CCR5 gene reduces the risk of **HIV**-1 infection in individuals with homozygous alleles. We explored whether genetic immunization would induce an immune response directed to CCR5 structures and if immunol. tolerance toward endogenous CCR5 could be broken. We also studied whether this immunization approach could protect cynomolgus monkeys from an infection, with SIVsm, which primarily uses CCR5 as a coreceptor. Epidermal but not i.m. delivery of the CCR5 gene to mice elicited strong IgG antibody binding responses to CCR5. Intramucosal immunization of cynomolgus macaques with CCR5 DNA

followed by boosts with CCR5 peptides induced prominent IgG and **IgA antibody** responses in serum and vaginal washings. The CCR5-specific antibodies neutralized the infectivity of primary human R5 **HIV**-1 strains, and the macaque SIVsm but not that of a tissue culture-adapted X4 **HIV**-1 strain. The consecutive CCR5 gene and CCR5 peptide immunizations induced B- and T-cell responses to peptides representing both human and macaque amino acid sequences of the resp. CCR5 proteins. This indicates that tolerance was broken against endogenous macaque CCR5, which has a 98% homol. to the human CCR5 gene. After the final boost, the **vaccinated** monkeys together with two control monkeys were challenged with SIVsm. Neither protection against nor enhancement of SIVsm infection was achieved. (c) 2000 Academic Press.

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:15035 HCAPLUS
DOCUMENT NUMBER: 132:69299
TITLE: Mucosal targeting immunization comprising immunogens
INVENTOR(S): Jourdier, Therese; Moste, Catherine; Meignier, Bernard
PATENT ASSIGNEE(S): Pasteur Merieux Serums & Vaccins, Fr.
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000000218	A1	20000106	WO 1999-FR1554	19990628
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2337823	AA	20000106	CA 1999-2337823	19990628
AU 9943761	A1	20000117	AU 1999-43761	19990628
EP 1087788	A1	20010404	EP 1999-926558	19990628
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
US 2001021384	A1	20010913	US 2000-746581	20001221

PRIORITY APPLN. INFO.: FR 1998-8354 A 19980626
WO 1999-FR1554 W 19990628

AB The invention concerns the use of an immunogen specific of a pathogenic agent with a gateway in the buccal mucous membrane region, for producing a **vaccine** compn. to be administered in the floor of the mouth in a human being so as to develop directly a local response in **IgA antibodies** and in **B cells** secreting **IgA** in the buccal mucous membrane, saliva and ganglions draining said mucous membrane. The invention also concerns a **vaccine** compn. capable of being applied in the floor of the mouth in a human being to induce local and systemic immunity in **IgA antibodies**, substantially consisting of a material adhering or not to the buccal mucous membrane and contg. an immunogen specific of the pathogenic agent with a gateway into the buccal mucous membrane. Capsules contg. starch

and hydroxyapatite particles comprising lyophilized antigens of cytomegalovirus or hepatitis A were prepd. The capsules were slowly dissolved inside the mouth. The hydroxyapatite facilitated the penetration of the immunogens through the mucosa.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:15033 HCAPLUS
DOCUMENT NUMBER: 132:69298
TITLE: Mucosal targeting immunization comprising immunogens
INVENTOR(S): Jourdier, Therese; Moste, Catherine; Meignier, Bernard
PATENT ASSIGNEE(S): Pasteur Merieux Serums & Vaccins, Fr.
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000000217	A1	20000106	WO 1999-FR1539	19990625
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2335506	AA	20000106	CA 1999-2335506	19990625
AU 9943754	A1	20000117	AU 1999-43754	19990625
AU 751970	B2	20020905		
EP 1089758	A1	20010411	EP 1999-926545	19990625
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				

PRIORITY APPLN. INFO.: FR 1998-8353 A 19980626
WO 1999-FR1539 W 19990625

AB The invention concerns the use of an immunogen specific of a pathogenic agent having a gateway in a mucous membrane for producing an immunogenic compn. to be administered to a human by parenteral route at the surface of part of the body distinct from the mucous membrane so as to directly develop a local response in **IgA**, IgG and/or IgM **antibody** in said mucous membrane. **Vaccines** against Herpes simplex, Candida, Chlamydia, human Papilloma virus, genital Mycoplasma, and Treponema pallidum was prepd. and injected to the buttocks muscle to stimulate local **IgA antibody** response in rectal, genital and urinary mucosa.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:970097 HCAPLUS
DOCUMENT NUMBER: 124:53092
TITLE: T cell responses in macaques after vaginal immunization with particulate SIV p27 antigen
AUTHOR(S): Panagiotidi, Christina; Bergmeier, Lesley A.; Gearing, Andy J. M.; Adams, Sally E.; Lehner, Thomas

CORPORATE SOURCE: UMDS, Guy's Hospital, London, SE1 9RT, UK
SOURCE: Advances in Experimental Medicine and Biology (1995), 371B, 1575-80
CODEN: AEMBAP; ISSN: 0065-2598
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Rhesus monkeys were immunized by the vaginal and oral routes using a recombinant particulate SIV antigen. Augmenting vaginal by oral immunization in macaques elicits proliferative CD4+ T-cells in the circulation which are specific to the immunizing p27 antigen. Reconstitution of enriched CD4+ T-cells, **B-cells**, and macrophages from circulating mononuclear cells help **B-cells** in specific **IgA** anti-p27 **antibody** synthesis. The results suggest that augmented vaginal immunization induces systemic CD4+ T- and **B-cell** responses which may play a part in the protective immunity against SIV (**HIV**) infection.

L6 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:189599 HCAPLUS
DOCUMENT NUMBER: 120:189599
TITLE: Mucosal model of genital immunization in male rhesus macaques with a recombinant simian immunodeficiency virus p27 antigen
AUTHOR(S): Lehner, Thomas; Tao, Louisa; Panagiotidi, Christina; Klavinskis, Linda S.; Brookes, Roger; Hussain, Luma; Meyers, Nicola; Adams, Sally E.; Gearing, Andy J. H.; Bergmeier, Lesley A.
CORPORATE SOURCE: United Med. Dent. Sch., Guy's Hosp., London, SE1 9RT, UK
SOURCE: Journal of Virology (1994), 68(3), 1624-32
CODEN: JOVIAM; ISSN: 0022-538X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB **Human immunodeficiency virus** (**HIV**) can be transmitted through infected seminal fluid or vaginal or rectal secretions during heterosexual or homosexual intercourse. To prevent mucosal transmission and spread to the regional lymph nodes, an effective **vaccine** may need to stimulate immune responses at the genitourinary mucosa. The authors developed a mucosal model of genital immunization in male rhesus macaques, by topical urethral immunization with recombinant simian immunodeficiency virus p27gag, expressed as a hybrid Ty virus-like particle (Ty-VLP) and covalently linked to cholera toxin B subunit. This treatment was augmented by oral immunization with the same **vaccine** but with added killed cholera vibrios. Polymeric secretory **IgA** (sIgA) and IgG **antibodies** to p27 were induced in urethral secretions, urine, and seminal fluid. This raises the possibility that the antibodies may function as a primary mucosal defense barrier against SIV (or **HIV**) infection. The regional lymph nodes which constitute the genital-assocd. lymphoid tissue contained p27-specific CD4+ proliferative and helper T cells for antibody synthesis by **B cells**, which may function as a secondary immune barrier to infection. Blood and splenic lymphocytes also showed p27-sensitized CD4+ T cells and **B cells** in addn. to serum IgG and **IgA** p27-specific **antibodies**; this constitutes a third level of immunity against dissemination of the virus. A comparison of genito-oral with recto-oral and i.m. routes of immunization suggests that only genito-oral immunization elicits specific sIgA and IgG antibodies in the urine, urethra, and seminal fluid. Both

genito-oral and recto-oral immunizations induce T-cell and **B-cell** immune responses in regional lymph nodes, with preferential **IgA antibody** synthesis. The mucosal route of immunization may prevent not only virus transmission through the genital mucosa but also dissemination and latency of the virus in the draining lymph nodes.

L6 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1993:668853 HCAPLUS
DOCUMENT NUMBER: 119:268853
TITLE: T- and **B-cell** functions and epitope expression in nonhuman primates immunized with simian immunodeficiency virus antigen by the rectal route
AUTHOR(S): Lehner, Thomas; Brookes, Roger; Panagiotidi, christina; Tao, Louisa; Klavinskis, Linda S.; Walker, Julia; Walker, Paul; Ward, Robert; Hussain, Luma; et al.
CORPORATE SOURCE: Div. Immunol., United Med. Dent. Sch. Guy's, London, SE1 9RT, UK
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1993), 90(18), 8638-42
CODEN: PNASA6; ISSN: 0027-8424
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Transmission of **human immunodeficiency virus** (**HIV**) in North America and Europe occurs most commonly through the rectal mucosa during homosexual intercourse. The simian immunodeficiency virus (SIV) macaque model has been used to investigate rectal immunization. The **vaccine** used was a recombinant SIV gag p27 expressed as hybrid Ty virus-like particles (Ty-VLP). Sequential ororectal (OR) mucosal immunization was compared with i.m. immunization. Whereas both routes of immunization induced serum **IgA** and IgG p27 **antibodies**, only OR immunization induced rectal secretory **IgA antibodies**. Specific CD4+ T-cell proliferative responses to stimulation with p27 were found after i.m. immunization only in the blood and spleen, but after OR immunization they were found in the internal iliac and inferior mesenteric lymph nodes in addn. to the blood and spleen. T-cell epitope mapping of the proliferative responses of short-term cell lines (STCLs) grown from peripheral blood or lymphoid cells revealed a major epitope within the polypeptide 121-150 after either route of immunization. Two minor T-cell epitopes were found within peptide 41-80 in STCLs from splenic and circulating cells. **B-cell** epitope mapping of serum or biliary **IgA** and IgG **antibodies** revealed two overlapping or adjacent immunodominant epitopes to the T-cell epitopes within the polypeptides 121-170 and 51-90. The results suggest that rectal immunization, augmented by oral immunization with a recombinant particulate antigen in nonhuman primates, elicits secretory IgA and to a lesser extent IgG responses in the draining lymph nodes and the rectal mucosa, whereas systemic immunization targets predominantly splenic and circulating T- and **B-cell** responses. These findings may have important implications in the strategy of designing **vaccines** in prevention of homosexual transmission of **HIV** infection.

=> d stat que
L1 215 SEA FILE=REGISTRY IMMUNOGLOBULIN A?/CN
L3 15080 SEA FILE=HCAPLUS L1 OR IMMUNOGLOBULIN(W)A OR IGA

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L5          63 SEA FILE=HCAPLUS L3(5A)(ANTIBOD? OR AB# OR MAB OR PAB) AND
               (HIV OR HUMAN(W)IMMUNODEFIC?(W)VIRUS) AND VACCIN?
L6          10 SEA FILE=HCAPLUS L5 AND B(W)CELL?
L7          16 SEA FILE=HCAPLUS L5(L)(MOUTH? OR ORAL OR ?LINGUAL?)
L8          11 SEA FILE=HCAPLUS L7 NOT L6
L9           7 SEA FILE=HCAPLUS L8 AND THU/RL
L10          4 SEA FILE=HCAPLUS L8 AND SECRETORY
L11          8 SEA FILE=HCAPLUS L9 OR L10


=> d ibib abs hitrn l11 1-8

L11  ANSWER 1 OF 8  HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:        2002:541056  HCAPLUS
DOCUMENT NUMBER:         137:123703
TITLE:                   Human papillomavirus (HPV) infection in Southern
                         Africa: prevalence, immunity, and vaccine
                         prospects
AUTHOR(S):               Williamson, Anna-Lise; Marais, Dianne; Passmore,
                         Jo-Ann; Rybicki, Ed
CORPORATE SOURCE:        Institute of Infectious Disease and Molecular
                         Medicine, Faculty of Health Sciences, University of
                         Cape Town, Cape Town, 7925, S. Afr.
SOURCE:                  IUBMB Life (2002), 53(4,5), 253-258
                         CODEN: IULIF8; ISSN: 1521-6543
PUBLISHER:               Taylor & Francis Inc.
DOCUMENT TYPE:           Journal; General Review
LANGUAGE:                English
AB   A review. Human papillomavirus (HPV) assocd. cancers are more prevalent
     in developing countries compared to developed countries. The major cancer
     caused by HPV is cervical cancer. The humoral immune response to HPV can
     be a marker of past infection but may also reflect persistent infection
     and cervical disease. IgA antibodies to HPV in
     oral fluid were also markers of cervical disease. Cell mediated
     immunity is important in clearing HPV infection and for regression of the
     assocd. lesions: this means that women infected with HIV have a
     high prevalence of co-infection with HPV. Good cervical screening
     programs can control HPV assocd. cervical neoplasia. However, in
     countries such as South Africa, where these programs are inadequate, there
     is a need for an HPV vaccine. The development of HPV
     vaccines is reviewed. There is a call for an inexpensive
     vaccine that will be accessible to the women that do not have
     access to adequate screening programs and are therefore at the greatest
     risk of cervical cancer.
REFERENCE COUNT:         83    THERE ARE 83 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11  ANSWER 2 OF 8  HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:        2001:452881  HCAPLUS
DOCUMENT NUMBER:         135:51019
TITLE:                   Use of inactivated immunosuppressive or angiogenic
                         immunogenic proteins for producing secretory
                         IgA
INVENTOR(S):             Zagury, Daniel
PATENT ASSIGNEE(S):      Neovacs, Fr.
SOURCE:                  PCT Int. Appl., 44 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:           Patent
LANGUAGE:                French
```

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001043771	A1	20010621	WO 2000-FR3526	20001214
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
FR 2802426	A1	20010622	FR 1999-15825	19991215
BR 2000016371	A	20020827	BR 2000-16371	20001214
EP 1237573	A1	20020911	EP 2000-985439	20001214
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003003106	A1	20030102	US 2002-168115	20020617

PRIORITY APPLN. INFO.: FR 1999-15825 A 19991215
WO 2000-FR3526 W 20001214

AB The invention concerns the use of a protein derived from cancer cells, cells infected by a virus or immune cells or an inactive fragment of said protein, said protein being initially an immunosuppressive and/or an angiogenic protein with local activity whereof said properties have been inactivated by at least 70 % by a phys. and/or chem. treatment, such as formolization, carboxamidation, carboxymethylation, maleimidation or oxidn. by oxygen bubbling, by genetic recombination or by adjuvant conditioning, said treatment preserving its property of being identified by antibodies directed against said protein, and preserving sufficient immunogenic properties for generating antibodies neutralizing or blocking said native protein, or the use of a DNA mol. corresponding to said protein inactivated by mutation or to said inactive fragment, for obtaining a medicine designed to provide a patient with mucosal immunity based on secretion of **IgA secretory antibodies**, pharmaceutical compns. for the mucous membranes and **IgA antibodies**.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:311249 HCAPLUS
DOCUMENT NUMBER: 135:356513
TITLE: Induction in mucosa of IgG and **IgA antibodies** against parenterally administered soluble immunogens
AUTHOR(S): Decroix, N.; Hocini, H.; Quan, C. P.; Bellon, B.; Kazatchkine, M. D.; Bouvet, J.-P.
CORPORATE SOURCE: Unite d'Immunopathologie humaine INSERM U430, Hopital Broussais, Paris, F.75674/14, Fr.
SOURCE: Scandinavian Journal of Immunology (2001), 53(4), 401-409
CODEN: SJIMAX; ISSN: 0300-9475
PUBLISHER: Blackwell Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The induction of mucosal immunity provides an addnl. principle of

vaccination by preventing the entry of pathogens in the body. Albeit the fact that intensive research has been conducted on local **vaccines**, the major mucosal **vaccine** com. available for human use remains the **oral** polio **vaccine**. The authors have previously demonstrated that parenteral **vaccination** in humans with tetanus toxoid (TT) results in a genital IgG antibody (Ab) response. Here, the authors show that injection of TT with no adjuvant induces an anti-TT response in the mucosal tissues of normal BALB/c mice. The response is multiregional, involves both IgG and IgA isotypes, and is long-lasting. Similarly, injection of haptens coupled to TT or to other diffusible proteins may induce mucosal Abs. These results led the authors to immunize normal BALB/c mice with a viral peptide coupled to TT by disulfide bridging. The hapten is a 17 amino acid peptide contg. the ELDKWA sequence of **human immunodeficiency virus** (**HIV**)-1 gp41. A significant IgG and **IgA** **Ab** response to the immunizing peptide was induced in various mucosal tissues despite the presence of a suboptimal Ab response in the spleen. Thus, mucosal immunity to peptides that are candidates for human **vaccinations** may be achieved by parenteral adjuvant-free immunization with peptide coupled to TT.

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:65254 HCAPLUS
DOCUMENT NUMBER: 132:249710
TITLE: **Oral** DNA **Vaccination** Promotes Mucosal and Systemic Immune Responses to **HIV** Envelope Glycoprotein
AUTHOR(S): Kaneko, Hiroshi; Bednarek, Ilona; Wierzbicki, Andrzej; Kiszka, Irena; Dmochowski, Marian; Wasik, Thomas J.; Kaneko, Yutaro; Kozbor, Danuta
CORPORATE SOURCE: Department of Microbiology and Immunology, Thomas Jefferson University, Philadelphia, PA, 19107-6799, USA
SOURCE: Virology (2000), 267(1), 8-16
CODEN: VIRLAX; ISSN: 0042-6822
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In this report, we described induction of **HIV** envelope (env)-specific systemic and mucosal immune responses by **oral** **vaccination** of BALB/c mice with env-encoded plasmid DNA encapsulated in poly(DL-lactide-co-glycolide) (PLG) microparticles. We demonstrated that intragastric administration of the encapsulated plasmid DNA resulted in transduced expression of the env glycoprotein in the intestinal epithelium. Mice immunized orally exhibited env-specific type 1 and cytotoxic T lymphocyte (CTL) responses in spleen and the inductive (Peyer's patches) and effector (lamina propria) mucosal tissues of gut. **Oral** administration of PLG-encapsulated plasmid DNA encoding gp160 also induced env-specific serum **antibodies**, and an increased level of **IgA** directed to gp160 was detected in fecal washes of the immunized mice. In contrast, i.m. administration of naked or PLG-encapsulated DNA **vaccine** induced only systemic cellular and humoral responses to the env glycoprotein. Using an **HIV** env-expressing recombinant **vaccinia** viral intrarectal murine challenge system, we obsd. higher resistance to mucosal viral transmission in mice immunized orally than in animals injected i.m. with PLG-encapsulated plasmid DNA encoding gp160. Results of these studies

demonstrate the feasibility of using orally delivered PLG microparticles contg. plasmid DNA-encoded **HIV** gp160 for induction of env-specific systemic and mucosal immune responses and protection against recombinant **HIV** env **vaccinia** virus challenge. (c) 2000 Academic Press.
REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:64958 HCAPLUS
DOCUMENT NUMBER: 130:138289
TITLE: Pseudomonas exotoxin A-like chimeric immunogens for eliciting a **secretory** IgA-mediated immune response
INVENTOR(S): Fitzgerald, David J.; Mrsny, Randall J.
PATENT ASSIGNEE(S): United States Dept. of Health and Human Services, USA; Genentech, Inc.
SOURCE: PCT Int. Appl., 86 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9902712	A1	19990121	WO 1998-US14336	19980710
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9883929	A1	19990208	AU 1998-83929	19980710
EP 1000162	A1	20000517	EP 1998-934405	19980710
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 2003054012	A1	20030320	US 2000-462713	20000512

PRIORITY APPLN. INFO.: US 1997-56924P P 19970711
WO 1998-US14336 W 19980710

AB This invention provides methods of eliciting a **secretory** IgA-mediated immune response in a subject by administering a Pseudomonas exotoxin (PE) A-like chimeric immunogens that include a non-native epitope in the Ib domain of Pseudomonas exotoxin. The chimeric immunogen comprises (1) a cell recognition domain that binds to cell surface receptor on mucosal surface, (2) a translocation domain (PE domain II) to effect translocation to cell cytosol, (3) a foreign epitope domain, and (4) an endoplasmic reticulum retention domain. The foreign epitope domain is derived from epitope of **HIV**-1, herpes virus, **vaccinia**, cytomegalovirus, yersinia or vibrio. Compns. comprising **secretory IgA antibodies** that specifically recognize an epitope of **HIV**-1 also are provided.
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:651707 HCAPLUS

DOCUMENT NUMBER: 130:37000
TITLE: Controlled lipidation and encapsulation of peptides as a useful approach to mucosal immunizations
AUTHOR(S): Mora, Ana L.; Tam, James P.
CORPORATE SOURCE: Dep. of Microbiology and Immunology, Vanderbilt University, Nashville, TN, 37232-2363, USA
SOURCE: Journal of Immunology (1998), 161(7), 3616-3623
CODEN: JOIMA3; ISSN: 0022-1767
PUBLISHER: American Association of Immunologists
DOCUMENT TYPE: Journal
LANGUAGE: English

AB To generate a useful strategy for mucosal immunization, we have developed an approach of lipidating a multiple Ag peptide (mAP) contg. part of the V3 loop from **HIV**-1 gp120IIIB. In this work, we compare two delivery systems, lipidated MAP in PBs and encapsulation in poly(DL-lactide-co-glycolide) microparticles. S.c. immunization, followed by intragastric administration of MAP peptide entrapped or not entrapped in microparticles, induced mucosal and systemic immune responses at local and distant sites, including mucosal IgA in saliva, vaginal secretions and feces, and IgG in blood. However, lipidated Ag delivered in microparticles induced higher levels of mucosal **Abs**, particularly of intestinal **IgA**, and generated CTL responses. In contrast, lipidated MAP delivered by nasal route microparticles was less effective in inducing CTL responses. These results demonstrate the feasibility of using a lipidated multimeric peptide for mucosal immunization to stimulate both systemic and mucosal immune systems, including the genital tract, irresp. of the route or method of delivery and without requiring the use of a carrier or an extraneous adjuvant.

REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:245763 HCAPLUS
DOCUMENT NUMBER: 125:7588
TITLE: Induction of mucosal immunity against **HIV**
AUTHOR(S): Bukawa, Hiroki; Fujita, Kiyohide; Okuda, Kenji
CORPORATE SOURCE: Sch. Med., Yokohama City Univ., Yokohama, 236, Japan
SOURCE: Saishin Igaku (1996), 51(4), 492-8
CODEN: SAIGAK; ISSN: 0370-8241
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese

AB A review with 21 refs., on **oral** immune tolerance and induction of mucosal immunity, induction of mucosal immunity to simian immunodeficiency virus, and neutralization of **HIV** by mucosal **secretory HIV**-specific **IgA antibody** induced by a synthetic peptide **vaccine** candidate.

L11 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:666339 HCAPLUS
DOCUMENT NUMBER: 123:81178
TITLE: Neutralization of **HIV**-1 by **secretory** IgA induced by **oral** immunization with a new macromolecular multicomponent peptide **vaccine** candidate
AUTHOR(S): Bukawa, Hiroki; Sekigawa, Ken-Ichiro; Hamajima, Kenji; Fukushima, Jun; Yamada, Yoshihiko; Kiyono, Hiroshi; Okuda, Kenji
CORPORATE SOURCE: Dep. Oral, Maxillofacial Surgery, Third Dep. Internal Med., Dep. Bacteriology, Yokohama City Univ. Sch.

Med., Yokohama, 236, Japan
SOURCE: Nature Medicine (New York) (1995), 1(7), 681-5
CODEN: NAMEFI; ISSN: 1078-8956
PUBLISHER: Nature Publishing Co.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Control of pandemic infection of **human immunodeficiency virus** type 1 (**HIV**-1) requires some means of developing mucosal immunity against **HIV**-1 because sexual transmission of the virus occurs mainly through the mucosal tissues. However, there is no evidence as yet that the **secretory IgA** (**IgA**) **antibody** induced by immunization with antigens in exptl. animals can neutralize **HIV**-1. We demonstrate here that **oral** immunization with a new macromol. peptide antigen and cholera toxin (CT) induces a high titer (1:211) of gut-assocd. and **secretory IgA antibody** to **HIV**-1. Using three different neutralizing assays, we clearly demonstrate that this **secretory IgA antibody** is able to neutralize **HIV**-1IIIB, **HIV**-1SF2 and **HIV**-1MIN. Our new approach may prove to be important in the development of a mucosal **vaccine** that will provide protection of mucosal surfaces against **HIV**-1.

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     (FILE 'HOME' ENTERED AT 09:42:22 ON 09 JUN 2003)

     FILE 'REGISTRY' ENTERED AT 09:42:31 ON 09 JUN 2003
                E IMMUNOGLOBULIN A/CN
L1          215 S IMMUNOGLOBULIN A?/CN
                E GP160/CN
L2           58 S GP160?/CN

     FILE 'HCAPLUS' ENTERED AT 09:43:48 ON 09 JUN 2003
L3        15080 S L1 OR IMMUNOGLOBULIN(W)A OR IGA
L4         1258 S L2 OR GP160 OR GLYCOPROTEIN(W)160
L5           63 S L3(5A)(ANTIBOD? OR AB# OR MAB OR PAB) AND (HIV OR HUMAN(W)IMM
L6           10 S L5 AND B(W)CELL?

     FILE 'HCAPLUS' ENTERED AT 10:06:55 ON 09 JUN 2003
L7           16 S L5(L)(MOUTH? OR ORAL OR ?LINGUAL?)
L8           11 S L7 NOT L6
L9            7 S L8 AND THU/RL
L10           4 S L8 AND SECRETORY
L11           8 S L9 OR L10

=> s l5 and l4
L12           7 L5 AND L4

=> s l12 not (l6 or l11)
L13           6 L12 NOT (L6 OR L11)
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L1          215 SEA FILE=REGISTRY IMMUNOGLOBULIN A?/CN
L2           58 SEA FILE=REGISTRY GP160?/CN
L3        15080 SEA FILE=HCAPLUS L1 OR IMMUNOGLOBULIN(W)A OR IGA
L4         1258 SEA FILE=HCAPLUS L2 OR GP160 OR GLYCOPROTEIN(W)160
L5           63 SEA FILE=HCAPLUS L3(5A)(ANTIBOD? OR AB# OR MAB OR PAB) AND
                  (HIV OR HUMAN(W)IMMUNODEFIC?(W)VIRUS) AND VACCIN?
L6           10 SEA FILE=HCAPLUS L5 AND B(W)CELL?
L7           16 SEA FILE=HCAPLUS L5(L)(MOUTH? OR ORAL OR ?LINGUAL?)
L8           11 SEA FILE=HCAPLUS L7 NOT L6
L9            7 SEA FILE=HCAPLUS L8 AND THU/RL
L10           4 SEA FILE=HCAPLUS L8 AND SECRETORY
L11           8 SEA FILE=HCAPLUS L9 OR L10
L12           7 SEA FILE=HCAPLUS L5 AND L4
L13           6 SEA FILE=HCAPLUS L12 NOT (L6 OR L11)


=> d ibib abs hitrn l13 1-6

L13  ANSWER 1 OF 6  HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:         2003:11619  HCAPLUS
DOCUMENT NUMBER:          138:105326
TITLE:                    HIV mucosal vaccine: nasal
                          immunization with gp160-encapsulated
                          hemagglutinating virus of Japan-liposome induces
                          antigen-specific CTLs and neutralizing antibody
                          responses
AUTHOR(S):                Sakaue, Gaku; Hiroi, Takachika; Nakagawa, Yoko;
                          Someya, Kenji; Iwatani, Kohich; Sawa, Yoshiki;
                          Takahashi, Hidemi; Honda, Mitsuo; Kunisawa, Jun;
                          Kiyono, Hiroshi
CORPORATE SOURCE:         Department of Mucosal Immunology, Research Institute
                          for Microbial Diseases, Osaka University, Osaka,
                          565-0871, Japan
SOURCE:                   Journal of Immunology (2003), 170(1), 495-502
                          CODEN: JOIMA3; ISSN: 0022-1767
PUBLISHER:                American Association of Immunologists
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
AB   Nasal immunization of normal mice with HIVgp160-encapsulated
     hemagglutinating virus of Japan (HVJ)-liposome induced high titers of
     gp160-specific neutralizing IgG in serum and IgA in nasal wash,
     saliva, fecal ext., and vaginal wash, along with both Th1- and Th2-type
     responses.  HIVgp160-specific IgG- and IgA-producing cells were also
     detected in mononuclear cells isolated from spleen, nasal cavity, salivary
     gland, intestinal lamina propria, and vaginal tissue of nasally immunized
     mice.  In addn., CD8+ CTLs were induced in mice nasally immunized with
     gp160-HVJ-liposome.  These findings suggest that two layers of
     effective HIV-specific humoral and cellular immunity, in mucosal
     and systemic sites, were induced by this nasal vaccine.  In
     immunodeficient mice, nasal immunization with gp160-HVJ-liposome
     induced Ag-specific immune responses for the systemic and mucosal
     compartments of both Th1 (IFN-.gamma.-/-) and Th2 (IL-4-/-).  In vitro
     Ag-specific serum IgG Ab and vaginal wash samples possessing
     IgA and IgG Abs that had been induced by nasal
     immunization with gp160-HVJ-liposome were able to neutralize a
     clin. isolated strain of HIV-MN strain isolated from Japanese
     hemophiliac patients.  Taken together, these results suggest that, for the
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prevention and control of AIDS, nasally administered **gp160** -HVJ-liposome is a powerful immunization tool that induces necessary Ag-specific immune responses at different stages of **HIV** infection.

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:287847 HCAPLUS
DOCUMENT NUMBER: 133:250968
TITLE: False positivity of enzyme-linked immunosorbent assay for measurement of secretory **IgA antibodies** directed at **HIV** type 1 antigens
AUTHOR(S): Jackson, Susan; Prince, Shirley; Kulhavy, Rose; Mestecky, Jiri
CORPORATE SOURCE: Dep. Microbiol., Univ. Alabama, Birmingham, AL, 35294, USA
SOURCE: AIDS Research and Human Retroviruses (2000), 16(6), 595-602
CODEN: ARHRE7; ISSN: 0889-2229
PUBLISHER: Mary Ann Liebert, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We have detd. that polymeric IgA in saliva of **HIV**-1-uninfected individuals binds in varying degrees to components of culture supernatants contg. **HIV**-1 recombinant proteins when ELISA is used for the detn. This finding did not extend to salivary IgG antibodies. Further, such problems were not encountered in Western blot. Binding did not appear to be mediated by salivary proteins known to bind to IgA, including secretory component, amylase, lactoferrin, lysozyme, galactosyl transferase, or secretory leukocyte protease inhibitor, and was not influenced by blocking reagents or by changes in secondary anti-**IgA antibodies**. Although these findings will not likely impact on the use of saliva as a diagnostic fluid for **HIV**-1 infection (the **HIV**-1 response in saliva is mostly of the IgG isotype), they indicate that assessments of this secretion as an indicator of IgA mucosal immune responses to **HIV**-1 **vaccines** should be undertaken with caution.
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:121802 HCAPLUS
DOCUMENT NUMBER: 128:191394
TITLE: Modulation of immunologic responses to **HIV** -1MN recombinant **gp160 vaccine** by dose and schedule of administration
AUTHOR(S): Gorse, Geoffrey J.; Mcelrath, M. Julie; Matthews, Thomas J.; Hsieh, Ray-Hahn; Belshe, Robert B.; Corey, Lawrence; Frey, Sharon E.; Kennedy, Donald J.; Walker, Mary Clare; Eibl, Martha M.; National Institute of Allergy and Infectious Diseases AIDS Vaccine Evaluation Group
CORPORATE SOURCE: Division of Infectious Diseases and Immunology, Saint Louis University School of Medicine and St. Louis Department of Veterans Affairs Medical Center, St. Louis, MO, 63110, USA
SOURCE: Vaccine (1998), 16(5), 493-506

CODEN: VACCDE; ISSN: 0264-410X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The safety and immunogenicity of **HIV**-1MN, recombinant **gp160** (MN rgp160) **vaccine** in healthy, uninfected volunteers was tested in a double-blind study with a factorial design. By random assignment, 20 volunteers received three 200 .mu.g doses of MN rgp160 and four volunteers received placebo at days 0, 28, and 168 or 0, 56, and 224. Of the 24 volunteers, 16 received 200 .mu.g or 800 .mu.g of MN rgp160 and two received placebo at day 532 (month 18). The **vaccine** was safe. It induced T cell memory measured by Th1 cytokine prodn. and lymphocyte proliferation, and serum antiMN rgp160 IgG (all subclasses) and **IgA antibodies**. Fifteen of 20 **vaccinees** developed neutralizing antibody. The regimen including immunizations on days 0, 28, and 168 followed by the 800 .mu.g fourth dose was most immunogenic.
REFERENCE COUNT: 63 THERE ARE 63 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:637776 HCAPLUS
DOCUMENT NUMBER: 127:317800
TITLE: Intranasal immunization of a DNA **vaccine** with IL-12- and granulocyte-macrophage colony-stimulating factor (GM-CSF)-expressing plasmids in liposomes induces strong mucosal and cell-mediated immune responses against **HIV**-1 antigens
AUTHOR(S): Okada, Eiichi; Sasaki, Shin; Ishii, Norihisa; Aoki, Ichiro; Yasuda, Tatsuji; Nishioka, Kusuya; Fukushima, Jun; Miyazaki, Jun-ichi; Wahren, Britta; Okuda, Kenji
CORPORATE SOURCE: Dep. Bacteriol., Yokohama City Univ. Sch. Med., Yokohama, Japan
SOURCE: Journal of Immunology (1997), 159(7), 3638-3647
CODEN: JOIMA3; ISSN: 0022-1767
PUBLISHER: American Association of Immunologists
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A DNA **vaccine** constructed with the CMV promoter conjugated to env **gp160** and rev genes has been shown to induce an effective Th1-type immune response when inoculated via an i.m. route. Here, the authors obtained high levels of both humoral and cell-mediated immune activity by intranasal administration of this DNA **vaccine**. The prodn. of mucosal **IgA Ab** in feces and vaginal fluid was stimulated by intranasal DNA administration. This route of administration resulted in **HIV**-1-neutralizing Abs in feces and serum. Cytokine assays revealed that intranasal administration of this DNA **vaccine** induces a Th2-type immune response. Interestingly, cationic liposomes greatly enhanced these activities. Abs. against **HIV**-1 were present for at least 10 mo. Co-administration of the DNA **vaccine** with IL-12- and granulocyte/macrophage-CSF-expressing plasmids induced high levels of **HIV**-specific CTLs and an increase in delayed type hypersensitivity when administered by the intranasal route. Thus, intranasal administration of this DNA **vaccine** with liposomes, together with IL-12- and/or granulocyte/macrophage-CSF-expressing plasmids, induces a strong level of anti-**HIV**-1 immune response.

L13 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1997:349473 HCAPLUS
DOCUMENT NUMBER: 127:32552
TITLE: Antibody to **human immunodeficiency virus** type 1 (**HIV**-1) **gp160** in mucosal specimens of asymptomatic **HIV**-1-infected volunteers parenterally immunized with an experimental recombinant **HIV**-1 IIIB **gp160 vaccine**
AUTHOR(S): Lambert, John S.; Viscidi, Raphael; Walker, Mary Clare; Clayman, Barbara; Winget, Marcy; Wolff, Mark; Schwartz, David H.
CORPORATE SOURCE: The Institute of Human Virology, University of Maryland at Baltimore School of Medicine, Baltimore, MD, 21201, USA
SOURCE: Clinical and Diagnostic Laboratory Immunology (1997), 4(3), 302-308
CODEN: CDIMEN; ISSN: 1071-412X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Twenty-two **human immunodeficiency virus** type 1 (**HIV**-1)-infected, asymptomatic volunteers with CD4 cell counts of >600 cells/mm3 who were enrolled in a phase I immunotherapy trial comparing 2 schedules of immunization of an **HIV**-1 IIIB-based recombinant **gp160** (rgp160) exptl. **vaccine** were evaluated for rgp160-specific antibodies in parotid saliva, genital secretions, and serum. When the study was unblinded, it was detd. that 5 volunteers had received rgp160 on a month 0, 1, 2, 3, 4, and 5 immunization schedule, 7 volunteers had received rgp160 on a month 0, 1, 2, and 5 schedule, 5 had received alum/deoxycholate placebo, and 7 had received a licensed hepatitis B virus **vaccine**. Five volunteers consented to the donation of parotid saliva but not genital secretions. Prior to immunization, parotid saliva specimens were available for 11 of 22 volunteers, seminal plasma (SP) specimens were available for 7 of 22 volunteers, cervicovaginal lavage (CVL) specimens were available for 5 of 22 volunteers, and serum was available for 22 of 22 volunteers. These baseline specimens and specimens collected at 1 and 7 mo after the final immunizations were assessed by ELISA for IgG and **IgA antibodies** specific for **HIV**-1 LAI rgp160 or **HIV**-1 MN rgp160. No augmentation in **HIV** rgp160-specific IgG or **IgA antibody** prodn. in either parotid saliva or serum specimens of **vaccinees** compared to that in controls was obsd. after immunization. There were insufficient nos. of SP or CVL specimens available for statistical comparisons between **vaccinees** and controls. Overall, anti-LAI rgp160 IgG antibodies were detected in the parotid saliva specimens of 20 of 22 volunteers, the seminal plasma specimens of 11 of 11 volunteers, and the CVL specimens of 6 of 6 volunteers and in 21 of 22 serum specimens. Fewer volunteers expressed anti-LAI rgp160 **IgA antibodies** in mucosal or serum specimens: 11 of 22 parotid saliva specimens, 3 of 11 SP specimens, 3 of 5 CVL samples, and 12 of 22 sera.

L13 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:498971 HCAPLUS
DOCUMENT NUMBER: 122:263172
TITLE: **HIV**-1 recombinant **gp160** **vaccine** induced antibodies in serum and saliva
AUTHOR(S): Gorse, Geoffrey J.; Rogers, Jason H.; Perry, John E.; Newman, Frances K.; Frey, Sharon E.; Patel, Gira B.;

Belshe, Robert B.; et al.
CORPORATE SOURCE: Health Sciences Center, Saint Louis University, St Louis, MO, 63110-0250, USA
SOURCE: Vaccine (1995), 13(2), 209-14
CODEN: VACCDE; ISSN: 0264-410X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB As part of a phase I safety and immunogenicity trial of a **vaccinia** -expressed **HIV**-1 recombinant **gp160** (rgp160) candidate **vaccine**, we measured serum and saliva antibody responses in low risk, uninfected volunteers. Six healthy adult volunteers received 50 .mu.g doses of rgp160 **vaccine** adjuvanted in alum and deoxycholate at months 0, 1, 6, and 12. A 200 .mu.g rgp160 immunization was given to four volunteers at 18 mo. The **vaccine** induced anti-envelope glycoprotein IgG and **IgA** serum **antibodies** in all six volunteers. Saliva antibodies to envelope glycoprotein appeared in some volunteers at certain timepoints. Three volunteers appeared to transiently develop **vaccine**-induced secretory **IgA antibody** to envelope glycoprotein in whole saliva.

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File 340:CLAIMS(R)/US Patent 1950-03/Jun 03
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File 345:Inpadoc/Fam.& Legal Stat 1968-2003/UD=200322
         (c) 2003 EPO
File 351:Derwent WPI 1963-2003/UD,UM &UP=200336
         (c) 2003  Thomson Derwent
File 357:Derwent Biotech Res. _1982-2003/Jun W3
         (c) 2003 Thomson Derwent & ISI
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 1998 Inst for Sci Info
File 440:Current Contents Search(R) 1990-2003/Jun 09
         (c) 2003 Inst for Sci Info
?ds

Set     Items   Description
S1     613078   (IMMUNOGLOBULIN(W)A OR IGA)(S)ANTIBOD? OR AB OR MAB OR PAB
             AND (HIV OR HUMAN(W)IMMUNODEFICIENCY(W)VIRUS) AND VACCIN?
S2      25799   S1 AND B(W)CELL?
S3       5584   S2 AND SECRET?
S4        623   S3 AND (MOUTH? OR ORAL OR LINGUAL OR SUBLINGUAL) AND (MUCO?
                OR SALIVA OR LYMPH? OR GANGLI?)
S5        322   RD (unique items)
S6          8   S5 AND (GP160 OR GLYCOPROTEIN(W)160)
?t6/3 ab/1-8
>>>No matching display code(s) found in file(s): 345

 6/AB/1     (Item 1 from file: 34)
DIALOG(R)File  34:SciSearch(R) Cited Ref Sci
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03363344   Genuine Article#: NZ467   Number of References: 78
Title: INTESTINAL  MUCOSAL  IMMUNOGLOBULINS DURING
    HUMAN-IMMUNODEFICIENCY-VIRUS TYPE-1 INFECTION  (Abstract Available)
Author(s): JANOFF EN; JACKSON S; WAHL SM; THOMAS K; PETERMAN JH; SMITH PD
Corporate Source: UNIV MINNESOTA,SCH MED,VET AFFAIRS MED CTR,DEPTMED,INFECT
    DIS SECT 111F,1 VET DR/MINNEAPOLIS//MN/55417; NIDR,IMMUNOL LAB,CELLULAR
    IMMUNOL SECT/BETHESDA//MD/20892; UNIV ALABAMA,DEPT
    MICROBIOL/BIRMINGHAM//AL/35294; UNIV ALABAMA,DEPT
    MED/BIRMINGHAM//AL/35294
Journal: JOURNAL OF INFECTIOUS DISEASES, 1994, V170, N2 (AUG), P299-307
ISSN: 0022-1899
Language: ENGLISH   Document Type: ARTICLE
Abstract: In intestinal fluid samples from 39 human immunodeficiency virus
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type 1 (HIV-1)-infected patients, IgA and IgG levels were equivalent, whereas in 10 controls, IgA levels were significantly higher than those of IgG ($P < .05$). Intestinal IgA in patients contained predominantly monomeric IgA1, whereas IgA1 and IgA2 subclass levels in controls were nearly equivalent and primarily polymeric. The predominance of IgG and monomeric IgA1 in mucosal fluid samples from HIV-1-infected patients suggests exudation of serum immunoglobulins into the intestine. The decreased proportion of mucosal plasma cells producing IgA and IgA2 in the HIV-1-infected patients ($P < .01$) may also contribute to the abnormal intestinal immunoglobulin levels. Intestinal IgG reacted with most HIV-1 antigens, whereas specific IgA was present in only 10 of 17 patients and reacted with only envelope (gp120 and gp160) and, less often, core (p17 and p24) antigens. Aberrant mucosal antibody responses and decreased integrity of the mucosal barrier may contribute to the intestinal dysfunction and infections that characterize HIV-1 infection.

6/AB/2 (Item 2 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

02794839 Genuine Article#: ME217 Number of References: 28
Title: CHARACTERISTICS OF IGA ANTIBODIES AGAINST HIV-1 IN SERA AND SALIVA FROM HIV-SEROPOSITIVE INDIVIDUALS IN DIFFERENT CLINICAL STAGES (Abstract Available)
Author(s): MATSUDA S; OKA S; HONDA M; TAKEBE Y; TAKEMORI T
Corporate Source: OSAKA POLICE HOSP,DEPT PEDIAT,10-31 KITAYAMA CHO,TENNOJI KU/OSAKA 543//JAPAN/; NATL INST HLTH,AIDS RES CTR/TOKYO 141//JAPAN/; UNIV TOKYO,INST MED SCI,DEPT INFECT DIS/TOKYO 113//JAPAN/; NATL INST HLTH,DEPT IMMUNOL/TOKYO 141//JAPAN/
Journal: SCANDINAVIAN JOURNAL OF IMMUNOLOGY, 1993, V38, N5 (NOV), P428-434
ISSN: 0300-9475
Language: ENGLISH Document Type: ARTICLE
Abstract: IgA antibodies were analysed in sera and saliva from 40 HIV-1 seropositive individuals.

The level of total IgA in serum was elevated according to the progress of the disease. IgA antibodies against p24 and gp160 were detected in the asymptomatic phase of infection. However, they declined in the symptomatic phases in contrast with IgG antibodies . Interestingly, three patients in the symptomatic phase who showed high levels of IgA antibodies were all in relatively good clinical condition. The IgG and IgA antibodies in saliva declined in the symptomatic phase. The level of IgG anti-p24 antibodies in saliva correlated with that in serum, suggesting that IgG anti-p24 antibodies in saliva originated from those in the serum. These results indicate that IgA antibodies are regulated independently from IgG antibodies and that the mucosal immune system is impaired early in the symptomatic phase of HIV infection, which starts with mucosal impairment. Detection of IgA antibodies may be useful for prognosis of the disease in HIV-infected individuals. The results indicate also that treatment for the impaired IgA mucosal immune system should be taken into consideration.

6/AB/3 (Item 3 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

02056499 Genuine Article#: JX139 Number of References: 37
Title: SERUM IGA SUBCLASSES AND MOLECULAR-FORMS IN HIV-INFECTION -

SELECTIVE INCREASES IN MONOMER AND APPARENT RESTRICTION OF THE ANTIBODY -RESPONSE TO IGA1 ANTIBODIES MAINLY DIRECTED AT ENV GLYCOPROTEINS (Abstract Available)
Author(s): KOZLOWSKI PA; JACKSON S
Corporate Source: UNIV ALABAMA,DEPT MICROBIOL/BIRMINGHAM//AL/35294
Journal: AIDS RESEARCH AND HUMAN RETROVIRUSES, 1992, V8, N10 (OCT), P 1773-1780
ISSN: 0889-2229
Language: ENGLISH Document Type: ARTICLE
Abstract: In a study population representing different CDC stages of HIV infection, 58% exhibited IgA hypergamma-globulinemia resulting from proportional increases in both the IgA1 and the IgA2 subclasses. These increases were detected early in infection, did not correlate with CD4 count, and remained elevated throughout disease progression. Absolute concentrations of polymeric IgA present within each subclass were unchanged, indicating that increased production of monomeric IgA1 and IgA2 were responsible for elevations of total IgA . These elevations were not completely attributable to a specific antibody response to viral infection, since Western blot analysis of purified IgA samples indicated that HIV-reactive IgA antibodies could be demonstrated only within the IgA1 subclass. Dominating IgA1 anti-HIV responses were also observed in two secretory IgA samples isolated from colostrum of healthy HIV seropositive mothers, suggesting that a similar isotype restriction exists in the mucosal IgA compartment. The binding of IgA1 to HIV proteins contrasted markedly to that observed with identical concentrations of IgG purified from the sera of the same patients. While IgG reacted more intensely and broadly with all HIV proteins, IgA1 antibodies were directed predominantly against envelope glycoproteins. In many patients, a total lack of IgA1 reactivity to gag and pol proteins was accompanied by intact IgG responses to these same antigens. Though all IgA samples examined reacted with HIV, fewer responses to gp160 , gp120, and p24 were observed in samples from AIDS and AIDS-related complex (ARC) patients, suggesting a declining titer of IgA antibodies against these antigens may be associated with disease progression. However, the preference of IgA1 antibodies for HIV env proteins suggests that a potential role for IgA -mediated neutralization of HIV may exist in vivo.

6/AB/4 (Item 4 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

01837086 Genuine Article#: JE582 Number of References: 38
Title: ENVELOPE-SPECIFIC ANTIBODIES IN THE SALIVA OF INDIVIDUALS VACCINATED WITH RECOMBINANT HIV-1 GP160 (Abstract Available)
Author(s): VASUDEVACHARI MB; UFFELMAN KW; KOVACS J; YEH CK; LANE HC; SALZMAN NP
Corporate Source: GEORGETOWN UNIV,SCH MED,DEPT MICROBIOL,MOLEC RETROVIROL LAB,ROOM LM-12,PRECLIN SCI BLDG/WASHINGTON//DC/20057; NIDR,CTR CLIN,DEPT CRIT CARE MED/BETHESDA//MD/20892; NIDR,CLIN INVEST & PATIENT CARE BRANCH/BETHESDA//MD/20892; NIAID,IMMUNOREGULAT LAB,CLIN & MOLEC RETROVIROLSECT/BETHESDA//MD/20892
Journal: JOURNAL OF ACQUIRED IMMUNE DEFICIENCY SYNDROMES, 1992, V5, N8 (AUG), P817-821
Language: ENGLISH Document Type: ARTICLE
Abstract: HIV-1-specific antibodies have been detected in the saliva of seropositive individuals and may play a role in preventing oral transmission of the virus. We have analyzed saliva samples obtained from HIV-1-seronegative individuals who were immunized with various dosages of a recombinant HIV-1 envelope glycoprotein (gp160) vaccine

for the presence of antibodies to HIV-1. Antibodies specific for envelope glycoproteins were detected in saliva from all of the volunteers, with those vaccinated with the higher doses of 640 and 1,280-mu-g showing the strongest responses. Peak salivary antibody titers were obtained 4-14 weeks after vaccination; they then gradually dropped in parallel with serum antibody titers. These envelope-specific antibodies were detected in whole saliva and in submandibular saliva but not in parotid saliva , suggesting that the source of antibodies in saliva is from serum transudation. The class of reactive antibodies was found to be IgG. The HIV-1-specific antibodies in the saliva of vaccinated individuals may offer local protection against HIV-1 infection.

6/AB/5 (Item 5 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

01496665 Genuine Article#: HD270 Number of References: 69
Title: HUMAN-IMMUNODEFICIENCY-VIRUS INFECTION INDUCES BOTH POLYCLONAL AND VIRUS-SPECIFIC B - CELL ACTIVATION (Abstract Available)
Author(s): SHIRAI A; COSENTINO M; LEITMANKLINMAN SF; KLINMAN DM
Corporate Source: US FDA,CTR BIOL,DIV VIROL,RETROVIRUS RES LAB/BETHESDA//MD/20014; US FDA,CTR BIOL,DIV VIROL,RETROVIRUS RES LAB/BETHESDA//MD/20014; NIH,DEPT TRANSFUS MED,APHORESIS SECT/BETHESDA//MD/20892
Journal: JOURNAL OF CLINICAL INVESTIGATION, 1992, V89, N2 (FEB), P561-566
Language: ENGLISH Document Type: ARTICLE
Abstract: Peripheral blood lymphocytes (PBL) were obtained from HIV-1-infected patients at different stages of disease. The absolute number of IgM-, IgG-, and IgA -producing lymphocytes per 10(6) PBL was increased 2.8-, 3.4-, and 1.9-fold, respectively, compared with normal controls. 2-17% of IgG- secreting patient cells reacted with the gp160 envelope glycoprotein of HIV-1 (a 737-fold increase over background), while 1-9% reacted with p24 (140-fold over background). In addition to this HIV-specific B cell activation, the number of lymphocytes reactive with nonviral antigens such as DNA, myosin, actin, trinitrophenylated keyhole limpet hemocyanin, and ovalbumin was increased by a mean of 17.9-fold. Evidence suggests that the latter changes reflect an HIV-induced polyclonal B cell activation unrelated to the production of anti-HIV antibodies . For example, the proportion of IgG anti- gp160 - and anti-p24- secreting lymphocytes declined in patients with advanced disease, whereas the number of B cells producing antibodies to non-HIV antigens rose. Moreover, CD4 cell count and T4/T8 ratio showed a significant inverse correlation with the degree of polyclonal activation but not with anti-HIV responsiveness. These observations demonstrate that both quantitative and qualitative changes in B cell activation accompany (and may be predictive of) disease progression in HIV-infected individuals.

6/AB/6 (Item 1 from file: 340)
DIALOG(R)File 340:CLAIMS(R)/US Patent

Dialog Acc No: 10021377 IFI Acc No: 2001-0021384 IFI Acc No: 2001-0005639
Document Type: C
MUCOSALLY TARGETED IMMUNIZATION; ADMINISTERING VACCINE
Inventors: Jourdier Therese (FR); Meignier Bernard (FR); Moste Catherine (FR)
Assignee: Unassigned Or Assigned To Individual
Assignee Code: 68000

Publication (No,Date), Applic (No,Date):
US 20010021384 20010913 US 2000746581 20001221
Publication Kind: A1
Priority Applic(No,Date): FR 988354 19980626; WO 99FR1554 19990628

Abstract: The invention concerns the use of an immunogen specific of a pathogenic agent with a gateway in the buccal mucous membrane region, for producing a vaccine composition to be administered in the floor of the mouth in a human being so as to develop directly a local response in IgA antibodies and in B cells secreting IgA in the buccal mucous membrane, saliva and ganglions draining said mucous membrane. The invention also concerns a vaccine composition capable of being applied in the floor of the mouth in a human being to induce local and systemic immunity in IgA antibodies , substantially consisting of a material adhering or not to the buccal mucous membrane and containing an immunogen specific of the pathogenic agent with a gateway into the buccal mucous membrane.

6/AB/7 (Item 1 from file: 351)
DIALOG(R)File 351:Derwent WPI

012999035
WPI Acc No: 2000-170887/200015
XRAM Acc No: C00-053056
Buccal administration of immunogen specific for pathogen that enters through the mucosa , for inducing protective local immune response, e.g. against HIV
Patent Assignee: PASTEUR MERIEUX SERUMS & VACCINS SA (INMR); AVENTIS PASTEUR (AVET); JOURDIER T (JOUR-I); MEIGNIER B (MEIG-I); MOSTE C (MOST-I)
Inventor: JOURDIER T; MEIGNIER B; MOSTE C
Number of Countries: 087 Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200000218	A1	20000106	WO 99FR1554	A	19990628	200015	B
AU 9943761	A	20000117	AU 9943761	A	19990628	200026	
EP 1087788	A1	20010404	EP 99926558	A	19990628	200120	
			WO 99FR1554	A	19990628		
US 20010021384	A1	20010913	US 2000746581	A	20001221	200155	

Priority Applications (No Type Date): FR 988354 A 19980626
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200000218	A1	F	29	A61K-039/21	
	Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW				
	Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW				
AU 9943761	A			A61K-039/21	Based on patent WO 200000218
EP 1087788	A1	F		A61K-039/21	Based on patent WO 200000218
	Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LI LU NL PT SE				
US 20010021384	A1			A61K-039/00	

Abstract (Basic): WO 200000218 A1
Abstract (Basic):
NOVELTY - Use of an immunogen (A), specific for a pathogen that enters the body through the buccal mucosa , to produce a vaccinating

composition for administration to the floor of the human mouth . The composition induces directly a local response of:

(1) immunoglobulin (Ig) A, and

(2) B cells that secrete Ab in the oral mucosa , the lymph nodes that drain it and the saliva .

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) vaccine composition, for administration as above to induce a local and systemic IgA response, containing a material that adheres to the mucosa and at least one (A), and

(2) a similar vaccine composition containing a non-adhesive material which degrades in contact with oral secretion and is provided with invasive elements that promote penetration of (A) across the buccal mucosa .

ACTIVITY - Antiviral; antibacterial; antimycotic.

MECHANISM OF ACTION - Induction of a specific immune response.

USE - (A) is particularly used to induce an immune response in the oral mucosa against human immune deficiency virus (HIV), particularly; herpes (e.g. herpes simplex), Candida, hepatitis virus (especially type A), picorna viruses (particularly polio), reoviruses (particularly rota viruses),adenoviruses, human papilloma virus, paradontosis, cytomegalovirus, Epstein-Barr virus, and all pathogens transmitted in aerosols, e.g. Mycobacterium tuberculosis, Neiserria meningitidis, Streptococcus type B, S. pneumoniae and Bordetella pertussis. It can be used for protective vaccination or for active immunotherapy. More generally, the method can be combined with any classical immunization procedure.

ADVANTAGE - The method is a simple, efficient and direct way of inducing local, and optionally also systemic, immunity.

pp; 29 DwgNo 0/0

6/AB/8 (Item 2 from file: 351)
DIALOG(R)File 351:Derwent WPI

012999034
WPI Acc No: 2000-170886/200015
XRAM Acc No: C00-053055
Parenteral use of immunogen specific for pathogen that enters through the mucosa for inducing protective or curative local immune response, e.g. against human immune deficiency virus
Patent Assignee: AVENTIS PASTEUR (AVET); PASTEUR MERIEUX SERUMS & VACCINS SA (INMR)
Inventor: JOURDIER T; MEIGNIER B; MOSTE C
Number of Countries: 087 Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200000217	A1	20000106	WO 99FR1539	A	19990625	200015	B
AU 9943754	A	20000117	AU 9943754	A	19990625	200026	
EP 1089758	A1	20010411	EP 99926545	A	19990625	200121	
			WO 99FR1539	A	19990625		
AU 751970	B	20020905	AU 9943754	A	19990625	200264	

Priority Applications (No Type Date): FR 988353 A 19980626
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200000217	A1	F	30	A61K-039/21	

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW
AU 9943754 A A61K-039/21 Based on patent WO 200000217
EP 1089758 A1 F A61K-039/21 Based on patent WO 200000217
Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LI LU NL PT SE
AU 751970 B A61K-039/21 Previous Publ. patent AU 9943754
Based on patent WO 200000217

Abstract (Basic): WO 200000217 A1
Abstract (Basic):

NOVELTY - Use of an immunogen (A), specific for a pathogen entering the body through mucosa , to produce a parenteral composition for administering to a human body surface that is different, and distant, from the mucosa . The composition directs a local response of:

(1) immunoglobulin (Ig) A, G and/or M antibdies (Ab), and

(2) of B cells that secrete Ab at the mucosa (and the lymph nodes that drain it).

ACTIVITY - Antiviral; antibacterial; antimycotic.

MECHANISM OF ACTION - Induction of a specific immune response.

USE - (A) is particularly used to induce an immune response in the rectal, genital and/or urinary mucosa , especially against human immune deficiency virus (HIV), particularly; herpes (e.g. herpes simplex), Candida, Chlamydia, human papilloma virus, genital Mycoplasma, Treponema pallidum and gonococcal infections. It can be used for protective vaccination or for active immunotherapy.

ADVANTAGE - The method induces local, and optionally also systemic, immunity efficiently and simply.

pp; 30 DwgNo 0/0

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